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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,276	09/26/2003	John C. Bucher	381123.00087	3111

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EXAMINER

NGUYEN, NINH H

ART UNIT PAPER NUMBER

3745

DATE MAILED: 06/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/674,276

Applicant(s)

BUCHER ET AL.

Examiner

Ninh H. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 April 2005.  
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-18 and 20 is/are rejected.  
 7) ☒ Claim(s) 19 is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☐ All b) ☐ Some \* c) ☐ None of:  
 1. ☐ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 4) ☐ Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_.  
 5) ☐ Notice of Informal Patent Application (PTO-152)  
 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Objections***

2. Claims 13 and 18 are objected to because of the following informalities:

In claim 13, on line 1, after "A fan", ",", said blade" should be deleted.

In claim 18, line 1, after "fan", "P" should be changed to --of--.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 12, 13, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Hackethal (2,336,012).

Hackethal discloses a propeller comprises a propeller blade (Figs. 1-11) including at least two longitudinal slats position side by side (Fig. 3); at least one hole constructed through an interior of the at least two longitudinal slats (Fig. 3); a dowel 11 placed through the hole to secure the at least two longitudinal slats firmly together;

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wherein the dowel further comprises a wooden rod dimensioned to fit in the at least one hole; and wherein the slats are constructed from wood; and

wherein a material in form of wood (14A, 14B) is placed over exposed ends of the dowel such that the dowel is enclosed within the slats (Fig. 3).

5. Claims 1, 5, 6, 8, 9, 17, 18, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Davis (1,786,644).

Davis discloses a propeller comprises a propeller blade (Figs. 1-4) including at least two longitudinal slats position side by side (Fig. 4); at least one hole constructed through an interior of the at least two longitudinal slats (Fig. 4); a dowel (a bolt in Fig. 4) placed through the hole to secure the at least two longitudinal slats firmly together;

wherein the propeller further comprising a threaded portion of one end of the dowel for receiving a nut that secures the dowel to the hole (Fig. 4);

wherein the propeller further comprising end caps (head of the bolt) for securing the dowel in the hole; and

wherein the slats are constructed from wood.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3, 4, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hackethal in view of Rahaim.

Hackethal discloses all the limitations except there is not an adhesive for securing the wooden dowel to the hole, and the dowel does not have grooves as claimed.

Rahaim teaches wood joining usually involves forming a mortise, applying glue to the mortise and inserting a dowel into the mortise (col. 1, lines 35-39); wherein the dowel comprises longitudinal grooves for proper glue distribution along the dowel (col. 2, lines 55-58).

It would have been obvious to a person having ordinary skill in the art at the time the invention was made, to make the propeller of Hackethal with the hole filled with glue and with the dowel having longitudinal groove for the purpose of obtaining proper glue distribution along the dowel as taught by Rahaim.

Since Rahaim teaches the basics for wood joining, and the making of the propeller of Hackethal involves joining of wooden slats with a dowel pin, the combination of Hackethal and Rahaim references is proper.

8. Claims 7, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davis.

Davis discloses all the limitations except the screw on cap is does not retract the screw on cap and the fixed cap into the slats when screwed on to the threaded portion as claimed.

Since the applicant has not disclosed that having the screw on cap retracting the screw on cap and the fixed cap into the slats when screwed on to the threaded portion solves any stated problem or is for any particular purpose above the fact that both the screw on cap and the fixed

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cap are hidden from view when the screw on cap is tightened, and it appears that the screw on cap and the fixed cap of Davis would perform equally well when being retracted into the slats as defined claimed by applicant, it would have been an obvious matter of design choice to modify the dowel of Davis by utilizing the specific screw on cap and fixed cap configuration as claimed.

Regarding claims 10 and 11, Davis discloses all the limitations except both ends of the dowel are not threaded to receive threaded end caps as claimed.

Since the applicant has not disclosed that having both ends of the dowel being threaded to receive threaded end caps solves any stated problem or is for any particular purpose above the fact that a threaded connector is a strong connector and it appears that the dowel of Davis would perform equally well with both threaded ends as claimed by applicant, it would have been an obvious matter of design choice to modify the dowel of Davis by utilizing the specific thread configuration as claimed.

***Allowable Subject Matter***

9. Claim 19 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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***Conclusion***

10. Applicant's amendment, reciting a *tan*, necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

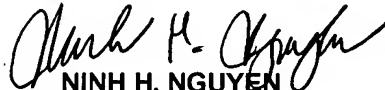
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Ninh Nguyen whose telephone number is (571) 272-4823. The examiner can be normally reached on Monday-Friday from 7:30 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Look, can be reached at (571) 272-4820. The fax number for this group is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, please go to <http://pair-direct.uspto.gov> or contact the Electronic Business center (EBC) at 866-217-9197 (toll-free).

  
NINH H. NGUYEN  
PRIMARY EXAMINER

Nhn

June 16, 2005